Background

[1] I am a licensed amateur radio operator, call sign K8JQ, icensed since 1965 and an Extra Class licensee. I have operated in the 1800-2000 kHz band for many years.

Discussion

[2] The proposed reallocation of 1900-2000 kHz is justifiable for at least three reasons. (1) Radiolocation beacons in the 1705-2000 kHz region of spectrum have currently fallen out of use. (2) Nearby frequencies outside the subject 1900-2000 kHz segment, already allocated to the Radiolocation service (RLS) on a primary basis, are sufficient to accommodate any future need for radiolocation beacons in the vicinity of 2 mHz. (3) The 1800-2000 kHz band is a valuable asset to the amateur radio service, and amateur licensees should enjoy the long term security of primary status across the entire band.

[3] Prior to the early 1980s, 1605-1800 kHz was heavily used by the RLS. When the AM broadcast band was expanded to 1705 kHz and radiolocation was accorded primary status in 1900-2000 kHz to re-accommodate displaced beacons, the 1705-1800 kHz segment continued to be heavily used by the RLS, and while some beacons appeared in the 1900-2000 kHz segment, the latter segment was never as heavily congested with radiolocation activity as was 1705-1800 kHz. With increased public access to the GPS navigation/location system beginning in May, 2000, radiolocation activity in both 1705-1800 kHz and 1900-2000 kHz began to dwindle, and at present, radiolocation beacons have virtually disappeared from this region of the spectrum. As stated in the instant Notice of Proposed Rulemaking, the Commission's ULS database finds no-one licensed to use the non-Federal RLS allocation in 1900-2000 kHz, hence no further justification for giving non-existent stations primary status inside a heavily used amateur band.

[4] Advantages of the GPS system over radiolocation include the widespread availability of small, low-cost, highly accurate instruments, often in the form of hand-held devices, usable almost anywhere on the globe. Shortcomings inherent to 2-mHz radiolocation systems include operating range limited to the coverage area of the transmitter, the cost and effort required to construct and maintain transmitter sites, seasonal and hourly vagaries of ionospheric propagation, severe thunderstorm static during the summer months, and increasing electromagnetic pollution of this part of the spectrum from nearby electrical and electronic devices. A radiolocation system operating near 2 MHz requires the procurement of real estate and material necessary to construct a tall mast or tower and radial ground system, similar to a medium-wave AM broadcast antenna, and the installation of a high power transmitter along with the necessary utilities to support operation of the site. It is hardly surprising that use of radiolocation beacons in this region of the spectrum has virtually ceased.

[5] In the event of a prolonged loss of GPS service due to natural catastrophe, deliberate sabotage of the satellite system, acts of war, or the re-imposition of Selective Availability for reasons of national security, the existing 1705-1800 kHz RLS allocation would sufficiently accommodate any need to reinstate radiolocation beacons in this region of the spectrum. The

1900-2000 kHz segment was never heavily used by the RLS, and according to ITU RADIO REGULATIONS 1990, ARTICLE 8 TABLE OF FREQUENCY ALLOCATIONS, this is but a minuscule fraction of the total spectrum allocated to the RLS in ITU Region II, over a range of frequencies between 70 kHz and 248 gHz.

[6] Regarding the single Federal assignment that authorizes land and mobile stations in the RLS to transmit on 1922 kHz using a necessary bandwidth of 600 Hz within a protected radius of 193 km centred on San Diego, California, these stations could be re-accommodated to the presently-vacant 1705-1800 kHz segment where the RLS would continue to enjoy primary status, in the same manner that radiolocation stations were shifted away from 1605-1705 kHz when the AM broadcast band was expanded. If such a move is not immediately practicable, radiolocation stations operating heretofore under this assignment could be grandfathered to continue their present operation as long as necessary. The amateur radio community at-large has not been advised of any recent conflict between amateur licensees and radiolocation users on this frequency. Accordingly, this operation would continue to have little, if any, impact on amateur operation.

[7] With the virtual disappearance of RLS beacons, amateurs presently enjoy de facto exclusive use of the 1900-2000 kHz segment, but the secondary status remains. This leaves the amateur service vulnerable to future RLS interests that might wish to re-activate beacons in this segment merely because of the convenience of the existing primary allocation, even though adequate spectrum exists elsewhere. Primary status in the entire 1800-2000 kHz segment would secure the future availability of a full 200 kHz-wide band allocation, thus encouraging amateur licensees to erect antennas and acquire the necessary equipment to operate in this band.

[8] As the only medium-frequency allocation presently available to amateurs, propagation characteristics and other properties of 1800-2000 kHz make this band uniquely interesting. During periods of low solar activity, this is often the only amateur band open for night time communications over distances beyond the local area out to 500 miles or more, due to the ionospheric skip zone that may occur on higher frequency bands, thereby making the 1800-2000 kHz allocation invaluable for routine amateur operation and possible needs in times of emergencies. The 2-mHz region of the spectrum lends itself particularly well to certain forms of technical investigation and self-instruction in the radio art. For example, in the realm of antennas, amateur experimentation could lead to the development or improvement of efficient, physically low profile medium-wave transmitting antennas, anti-skywave transmitting antennas that provide local ground wave coverage while generating minimal interference at distant points, as well as effective noise cancelling and weak-signal receiving antennas.

Conclusion

[9] As a long-time amateur radio licensee, I respectfully urge the Commission to adopt the proposed reallocation of the 1900-2000 kHz segment to the amateur service on a primary basis, as detailed in paragraphs 20 through 24 of this NOTICE OF PROPOSED RULEMAKING.